'Unlabeled and Unregulated': Synthetic Milk Protein with 32 Unknown Compounds Used by More Than a Dozen Food Brands

Donate Now
Tax, Public Pol Difference

Ranking the Health Hazard Levels of Ingredients Unleashed in Bored Ape's synthetic milk — produced from a "form of genetic engineering" — in addition to 32 unknown compounds, is a challenge, but it's clear that some of the ingredients are problematic from dairy, chocolate used ice cream.

By Suzanne Burdick, Ph.D.

Alice in Dip, Alice in Ice, Subscribe to The Defender's Top News of the Day, **it's free.**

Recent testing revealed 32 unknown molecules — and a fungicide — in "synthetic" milk now used in common [grocery items](#), reports Food Babe Ranger Vani Hari. The Defender, including that the synthetic milk lacked many important nutrients found in natural milk such as an omega-3 fatty acid called docosahexaenoic acid (DHA) and lipids.

It also contained a host of compounds that could be harmful to human health, Hari said.

This news comes as Italy last month banned the sale of synthetically produced meat, making it the first country to ban cultivated meat, according to the Consumers Association.

Together, in a molecular biologist and former cancer researcher at the National Institutes of Health — has been a worldwide pioneer in testing genetically engineered foods.

Subscribe to The Defender - It's Free!

SUGGEST A CORRECTION

Suzanne Burdick, Ph.D.
Suzanne Burdick, Ph.D., is a scientist and researcher for The Defender's Children's Health Defense.

Sign up **for free news and updates from Children's Health Defense. CHD focuses on legal strategies to defend the health of our children and whom pushes for these [toxic exposures](#) and [injustices](#).**

Supported by CHD's [donors](#).

Children's Health Defense Comment Policy
We welcome relevant and respectful comments. Off-topic or boilerplate comments may be removed.
Please read our Comment Policy before commenting.

Latest News
Ann Gibbons Unleashed Lawsuit Leading Thom...
Mike O. Stickney Dead in Utility Vehicle Crash
Author of Deadly Covid-19 Policy Memo Admits Lockdowns Didn't Work
Ex-Pfizer Scientist Blows the Whistle on Mass Deaths, Data Fraud
New Quality & Safety Standards for Personal Injury Protection
MORE NEWS

Latest Views
Is Ukraine Making Iran Stick Its Ass in Netanyahu's Sling?
Nothing Ever Will Be Enough for Ukraine and Its Supporters
Pfizer Set to Shift Vaccine Liability to Governments
Pfizer's Vaccine Program Is Corrupt

GET FREE News & Updates!
SIGN UP
Get Text Alerts
Sign up for breaking news alerts
Subscribe
Currently not eligible for members in Puerto Rico, Guam, and Virgin Islands.
Phone
Message and data rates may apply. Text STOP to cancel. Text HELP for help.
CONTINUE

RFK Jr. and Brian Hooker's New Book: "Vax-Unvax"
ORDER NOW

All important nutrients in natural milk absent in synthetic milk

"There were 69 important nutrients present in natural milk, most of which were absent in synthetic milk. A few were present in small or trace amounts," Hagan said.

For example, Bored Cows milk only has a trace of riboflavin, known as vitamin B2, while natural milk has very high levels, he said. Pantothenic acid, also known as vitamin B5, was "absolutely absent in the synthetic milk."

Similarly, vitamin A was "essentially absent and present in substantial levels in natural milk," he said.

Additionally, farms all [proteins](#) that are "really important for energy metabolism" were either missing or only present in trace amounts in the synthetic product, he said.

The synthetic milk had "only a tiny trace of the important omega-3 fatty acid DHA," Hagan said.

Alpha-lactalbumin and its "first-most-abundant omega-3 fatty acid protein," Bored Cow — is "identical to what cows make."

Industry calls it 'precision fermentation' rather than 'genetic engineering'

Bored Cow is one of at least ten companies selling "synthetic" or "lab-grown" products.

"Synbio" — short for "synthetic biology" — is a method that uses genetic engineering to modify microorganisms like yeast, algae or bacteria to produce novel products, according to the Non-GMO Project.

The Non-GMO Project is a nonprofit organization in marketing this method as [precision fermentation](#), because it involves a synthetic a natural process. … But it's actually a form of genetic engineering."

Indeed, Perfect Day avoids describing its production process as "genetic engineering," as [GMO], instead, instead explains on its website "How we teach microflora to create sustainable products."

Meanwhile, [critics](#) — including those like the nonprofit GMOScience Free USA — argue that the process is [GMO] and that the term only needs to undergo safety testing like any other GMO, it's "similar to."

GMOScience Free USA released a test of 13 brands they found to include synthetic milk products, such as alternative dairy ice cream, that are not labeled as such.

In addition to Bored Cows, the brands are Brave Robot, Nick's, Coolhaus, Slow Nutrition, Nestle Goodmylk, Missy FARO, LocoLand, Apolo, Moolern Kitchen, Nunshi and Mars EDGEVA.

The Non-GMO Project [solved more consumers](#), including The Urgent Company, Perfect Day, Remilk, Change Foods, Formo, Better Dairy, Nutrient Alliance, Imagindairy, Standing Ovation, Those Vegan Cowboys, Fonterra, Motif Foodworks, Revyve Food, Arkeon Food Technologies and Nourish Ingredients.

The [complete](#) Non-GMO Project [published](#) 50 million euros as the "precision fermentation" sector.

Does synbio dairy contain GMOs?

Hagan noted that the companies says their dairy [do not contain GMOs], but he said that's misleading. "Technically, that's correct, but that's entirely their product made with some of the GMO DNA. We are currently trying research to assess this," he said.

Current federal law does not require products that contain Profarm to be labeled as bioengineered or as containing GMOs. The Non-GMO Project notes that "[bioengineered foods are unregulated in the European Union.](#)"

Since no GMO labeling is required for products with synbio milk protein, people may not know they are buying a GMO product, said GMOScience Free USA.

For example, the ingredients listed for Bored Cow's "original" flavor are:

"Water, animal-free whey protein (from fermentation), sunflower oil, sugar, [GMO] cane sugar, natural flavors, tricalcium phosphate, salt, gellan gum, riboflavin, citrus fiber, salt, dipotassium phosphate, acacia gellan gum, mixed tocopherols (antioxidant), calcium potassium phosphate citrate, natural flavor."

The label does not specify that the whey protein was produced through genetic engineering of yeast.

There is nothing precise about the process'

Residents called HHS findings "very concerning" and said synbio milk products should undergo "extensive safety testing."

"These synthetic biology companies are claiming to use 'precision fermentation' but finding 50 unknown compounds shows there is nothing precise about the process," Hagan said in a statement to The Defender.

"It's just ridiculous for them to call it 'precision fermentation.' That's the kind of rumors of PR [public relations] firm.

"They say they use microflora, which is a nice term for GMO yeast.

"They are obviously trying to avoid using the term GMO because of negative connotations."

When asked by The Defender if its product was non-GMO, a Perfect Day spokesperson did not directly answer and instead said:

"Our process, precision fermentation, has been safely used in the food industry for decades to create common ingredients like insulin, rennet in most cheeses, citric acid, amino acids, Vitamin B12, and more."

Additionally, the spokesperson said the FDA on March 25, 2020, and the EU, that it has "no questions" letter that declared Profarm as "[generally Recognized as Safe](#)" (GRAS).

Given the Perfect Day's fermentation process involves using yeast, a factor how the FDA concluded the product could be "generally regarded as safe," Rowdess said.

Perfect Day's spokesperson said the FDA's evaluation for Profarm's GRAS clarification was "thorough and detailed on safety, including [allergenicity](#)."

But such an evaluation doesn't count for much, according to the Non-GMO Project, because the U.S. regulatory system around GMOs is "largely [ineffective]."

The Non-GMO Project told The Defender:

"The FDA does not carry out, commission or require mandatory safety studies for GMOs before they enter the food supply. Instead, GMOs are regulated by other government agencies, such as the EPA [Environmental Protection Agency] or APHIS [the U.S. Department of Agriculture's Animal and Plant Health Inspection Service], based on potential environmental impacts."

The FDA only looks at voluntary pre-market research that is designed and conducted by the companies making GMO products.

It's a "clear conflict of interest" that these companies "who stand to profit from GMO commercialization" are the ones doing the research, the Non-GMO Project said.

The bottom line, according to the Non-GMO Project, is that synbio milk "contains unidentified compounds and it has not undergone independent, long-term safety testing."

This is "very concerning" natural-risk milk, which has been part of our diet for millennia," the group added.

"The Wuhan Cover-Up" by Robert F. Kennedy Jr.
BOOK NOW

Sign Up
Get Free News and Updates
Subscribe to receive news, updates, and action alerts from Children's Health Defense.
First Name
Last Name
Email Address
ZIP Code
SIGN UP

Latest News
Ann Gibbons Unleashed Lawsuit Leading Thom...
Mike O. Stickney Dead in Utility Vehicle Crash
Author of Deadly Covid-19 Policy Memo Admits Lockdowns Didn't Work
Ex-Pfizer Scientist Blows the Whistle on Mass Deaths, Data Fraud
New Quality & Safety Standards for Personal Injury Protection
MORE NEWS

Latest Views
Is Ukraine Making Iran Stick Its Ass in Netanyahu's Sling?
Nothing Ever Will Be Enough for Ukraine and Its Supporters
Pfizer Set to Shift Vaccine Liability to Governments
Pfizer's Vaccine Program Is Corrupt

GET FREE News & Updates!
SIGN UP
Get Text Alerts
Sign up for breaking news alerts
Subscribe
Currently not eligible for members in Puerto Rico, Guam, and Virgin Islands.
Phone
Message and data rates may apply. Text STOP to cancel. Text HELP for help.
CONTINUE

12 0 Reply • Share ›

Truth is True → aj54
5 days ago

Very good point. We are a nation of consumers and most of it is junk; and then when you present people with the truth, they find it distasteful.

3 0 Reply • Share ›

Phillis Stein → Truth is True
4 days ago

I'd say this is a very large piece of the puzzle (except for Big Pharma products themselves) as to why Americans, who spend by far the most on their health systems (conventional), are getting lower and lower life expectancies - some of the lowest.

1 0 Reply • Share ›

Bella_Fantasia → Phillis Stein
4 days ago

Yes, we've got a sick care non-system. I believe them saying life expectancy just lowered several years over the pandemic; and we're getting shorter, a telling anthropological measure. Personally I'm nearly at the "cue by" date already.

1 0 Reply • Share ›

Bella_Fantasia → aj54
4 days ago

You have my vote for the most astute comment!

1 0 Reply • Share ›

Ricky Ricardo
5 days ago edited

You can discuss these topics until the cows come home (pun intended). It won't change anything. Humanity is screwed; and people will probably find out 'how screwed', sometime next year. I haven't been able to get organic celery for my smoothies for about a month now. The writing is on the wall and it's been there for a long time!
BTW: There hasn't been any real ice cream for many years! As far as the fake milk and all of the other fake products go...feed them to billy boy. It couldn't be more obvious that the evil creep couldn't care less about his health!

8 0 Reply • Share ›

Truth is True → Ricky Ricardo
5 days ago

Creep on steroids.

3 0 Reply • Share ›

Bella_Fantasia → Ricky Ricardo
4 days ago

There aren't enough adjectives for the repulsive, disgusting, perverse billy boy. But these seemingly non-humans do not seem to expect any blow back from their perversions. That points to our salvation, but we can't be hypnotized or paralyzed from making it happen.

2 0 Reply • Share ›

Ricky Ricardo → Bella_Fantasia
3 days ago

I think the most accurate description is: 100% EVIL!

0 0 Reply • Share ›

Phillis Stein → Ricky Ricardo
4 days ago

Oh no, this is where you misunderstand - the self-described "elites" don't eat this food themselves - this is only for the peasants.

1 0 Reply • Share ›

Naga
5 days ago edited

You've got to give it to these a**holes, they keep trying and they are determined to poison you one way or another. What people need to understand is this: The powers that be are not happy unless they can make money off of you your entire life and to do so, you must be in a chronic state of sickness. A pill for every ill. To say it's shameful would be the greatest of understatements. And they are not even satisfied with that. No, they need to surveille you 24/7, know everything you say or do, of course, so that they can stop you from doing anything that they perceive as a threat to them, which is the only reason they need everything that you do. And of course, in slavery days, slaves were property. They want all of us to be their property. I can see it now: You come up with a great idea, it's stolen from you because you're their property. Sickening. Remember. They tag cattle, and also remember the one size fits all program is part of how cattle is treated. smart cities will be a human CAFO, and we've seen these for chickens, cattle, pigs, et al. No wonder they need so many "vaccines". They're paw high in their own feces.

7 0 Reply • Share ›

BURYWEYMIER48 → Naga
5 days ago

Agreed. Do what you can to de-google your phones, computers etc. Make sure you have as much privacy as possible. Get rid of as much technology as you can.

3 0 Reply • Share ›

Naga → BURYWEYMIER48
4 days ago

the problem here is whether you have IOS or android, they constantly update the software with new little gotchas to track you, so the only real way is to write your own software but sadly, most people will not be able to do that. The best way would be to have a custom ROM or a jailbroken iPhone so that you can have a few apps as possible because the goal of them all is to tattle-tail on you to big brother. That's the idea behind them in the first place, and what they don't tell, your so-called "Smart" devices at home will. I do not have any firesticks, google home, alexa et al in my house. My so-called smart TV is not connected to the internet, although these a**holes have a way to get around that one. I've noticed that my Samsung TV occasionally pops up a message that someone wants to connect via blue-tooth and get what? You can't turn it off! I never allow the connection but given the world we know we now live in, we know for sure that there's total disrespect for your privacy and/or rights, so they're probably designed to connect to someone else's internet in order to grab information. I've noticed that, simple music players on phones are now asking to connect to wi-fi that's near. WHY? And now they want to put AI into everything which is the absolute worse idea. You thought the bio-weapon that is covid was bad, just wait until you have bias AI software making decisions. Intel, who makes computer chips is baking AI into their future chips, and you can bet AMD and Apple will follow. They are going ho to push this down our throats. Generations from now, they want to have generations of people who think that AI is the new God, and of course, AI is really the elites who control the puppet strings of our so called leaders. truly a sad state of affairs it's time for us all to wake up and I mean now.

1 0 Reply • Share ›

BURYWEYMIER48 → Naga
4 days ago

Our tv is old enough that it is not a 'smart' tv and we don't plan to get anything newer. I thought there were some brands of phones that they took the google out of it . . . (graphine OS phone?) I'm not sure and I don't really know what that is, but it might be worth a try. We don't have any alexa garbage. I agree with you . . . . we need to get rid of as much as possible. I hate technology anyway. I'd be happy to go back to pre-computer days. . . . . I could live without it . . . . . I like the convenience of some of it but I could get used to living without is since I haven't had it most of my life . . . . . if you have any good ideas of keeping privacy, I'm all ears.

0 0 Reply • Share ›

Phillis Stein → BURYWEYMIER48
4 days ago

Especially social media and anything labelled "SMART."

0 0 Reply • Share ›

BURYWEYMIER48 → Phillis Stein
4 days ago

Absolutely!!

0 0 Reply • Share ›

Phillis Stein → Naga
4 days ago

It's all written down in the CREEDS and other agreements they sign in freemasonry etc. They are not actually permitted to ever speak about the documents they sign, nor are they permitted to write them down ever for any reason upon PAIN of DEATH. So, that should give you an indication as to how this is a central part of their plans.

0 0 Reply • Share ›

Laura Hunt
5 days ago

Look at that list of processes and ingredients. One has to ask WHY. What a mix of chemical sickness. You'd have to be stupid to put that stuff in your mouth AND ESPECIALLY feed it to your loved ones. This sort of science experiment / FRANKEN FOODS must be eliminated.

7 0 Reply • Share ›

Lillith
5 days ago

Who would eat this? animal-free whey, synthetic vitamins and gums? and why would I want oil in my ice cream? just disgusting but I bet the younger generations who were not around when ice cream was just 4 ingredients won't know any better. This type of chemistry is yet another perfect tool to keep us down and sick. smh

4 0 Reply • Share ›

Phillis Stein → Lillith
4 days ago

And all of it is designed to HOLD BACK the natural evolution of our species. Think about that one!

0 0 Reply • Share ›

Truth is True → Lillith
5 days ago edited

They don't know any better. but we who do can raise our voices collectively in protest, and I feel certain they will join us.

https://www.facebook.com/re...

0 0 Reply • Share ›

Bella_Fantasia
4 days ago

We've come full circle from Upton Sinclair's Jungle, where the food was seriously adulterated for the incoming immigrants to eat or die trying. White paint was added to some liquid called milk. Meat processing in the stockyards of Chicago was more than a little dicey. The outcry after people read the book was to form the FDA!

Remember Orwell's Winston Smith ate fake meat, and we have adulterated and non-food forced upon us. We're in The Jungle all over again only more sciency.

3 0 Reply • Share ›

Truth is True
5 days ago

Not everyone includes dairy in their diet. But for those who do, the only milk humans should be drinking is RAW cow's milk or goat milk from small local good farms. But of course having healthy people is not part of "their" agenda so they tried to ban raw milk in this country. I still buy full fat raw milk from a small farm and have it delivered weekly. In Europe all the cheese is raw.

3 0 Reply • Share ›

Ektor
4 days ago

I have gone back to regular milk, but not everyday. I cannot trust these 'manufactured' products. Eating more meat from local sources.

2 0 Reply • Share ›

LinJK
5 days ago

Strange how vegans and vegetarians crave food that tastes like the real thing and would rather eat stuff that man has concocted in a laboratory than just vegetables and water. 1 **Timothy 4:4** For everything God created is good, and nothing is to be rejected if it is received with thanksgiving,

2 0 Reply • Share ›

Truth is True → LinJK
5 days ago

There seem to be a lot of misguided militant vegans along with the gentle aware ones who choose to not eat meat but follow an organic whole foods locally sources diet.

1 0 Reply • Share ›

Phillis Stein → LinJK
4 days ago

You are generalizing - not all vegetarians and vegans are the same, however, I would agree that there are many out there who don't do enough research. I'm vegetarian, but I won't touch anything specifically aimed at my group UNTIL I have researched it very thoroughly. In fact, I avoid all processed foods as much as possible. I would like to see more veggies and vegans do their homework, however.

I have one friend where I'm her boogeyman - she gets on diets and foods that "sound" good, but aren't and then I need to gently come in and persuade her away from them!

0 0 Reply • Share ›

Kathleen Willey → LinJK
4 days ago

I find it strange that animal eaters eat food that don't look like animals. I have never seen a cow that looks like a burger , a chicken that looks like a nugget, a fish that looks like a stick etc.....
And most healthy vegans do not eat the fake processed meats. That is a transition food for people who come to the realization they have been conditioned since birth by powerful for profit meat and dairy industries to make them believe they need to eat helpless animals

0 0 Reply • Share ›

Phillis Stein
4 days ago

Thanks Suzanne - great article.

1 0 Reply • Share ›

Load more comments

Subscribe Privacy Do Not Sell My Data

Children's Health Defense

Children's Health Defense® is a 501(c)(3) non-profit organization. Our mission is to end childhood health epidemics by working aggressively to eliminate harmful exposures, hold those responsible accountable and establish safeguards to prevent future harm. We fight corruption, mass surveillance and censorship that put profits before people as well as advocate for worldwide rights to health freedom and bodily autonomy.

THE DEFENDER IS AVAILABLE IN:
ENGLISH SPANISH PORTUGUESE GERMAN ITALIAN FRENCH

TAKE ACTION
DONATE FREE SIGN-UP BECOME A MEMBER

Donations are tax deductible to the full extent of the law. EIN #26-0388604

Children's Health Defense • Legal Disclaimer • Terms of Use • Privacy Policy • Donate • Work for CHD • Contact • Social • Membership FAQ

© 2016 - 2023 Children's Health Defense® - All Rights Reserved • Sitemap